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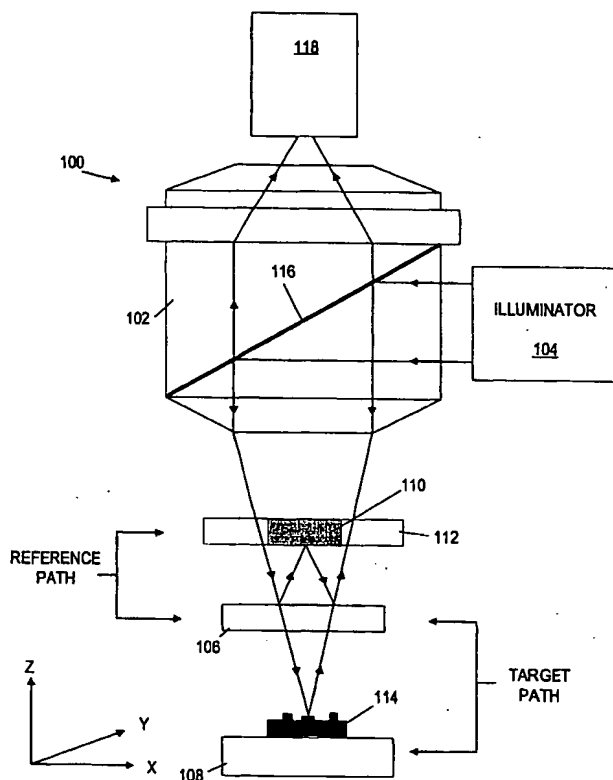
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(54) Title: NON-DESTRUCTIVE OPTICAL IMAGING SYSTEM FOR ENHANCED LATERAL RESOLUTION



(57) Abstract: In some embodiments, an optical imaging system comprises a non-destructive optical device that obtains information concerning a target object and a X,Y positioning system that is capable of positioning one or both of the target object and the optical device to pre-determined offset locations more closely spaced than the obtainable resolution of the optical device. A first "base" image is produced and then overlapping additional images may be produced by the positioning one or both of the target object and the optical device to the pre-determined locations. The first image and the additional images may be combined to produce a single combined image that contains inherently more information than the first image or any of the additional images alone. The combined image then may be digitally restored and enhanced to produce an image with a greater resolution than the optical device yields.

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